

02/03/98



**NEW, CONTINUATION, DIVISIONAL OR  
CONTINUATION-IN-PART APPLICATION  
UNDER 37 C.F.R. §1.53(b)**

Attorney Docket No. 8117-000021  
Express Mail Label No. EI 859 843 414 US  
Date February 3, 1998

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Hon. Commissioner of Patents and Trademarks  
Washington, D. C. 20231

Sir:

Transmitted herewith for filing under 37 C.F.R. §1.53(b) is a patent application for \_\_\_\_\_

identified by: ☐ First named inventor \_\_\_\_\_  
or ☒ Attorney Docket No. (see above)

**1. Type of Application**

☒ This application is a new (non-continuing) application.

☐ This application is a ☐ continuation / ☐ divisional / ☐ continuation-in-part of prior application No. \_\_\_\_\_. Amend the specification by inserting before the first line the sentence:

--This is a [continuation/division/continuation-in-part] of United States patent application No. \_\_\_\_\_, filed \_\_\_\_\_.--

☐ The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied, is considered part of the disclosure of the accompanying application and is hereby incorporated by reference therein.

If for some reason applicant has not requested a sufficient extension of time in the parent application, and/or has not paid a sufficient fee for any necessary response in the parent application and/or for the extension of time necessary to prevent the abandonment of the parent application prior to the filing of this application, please consider this as a Request for an Extension for the required time period and/or authorization to charge our Deposit Account No. 08-0750 for any fee that may be due. **THIS FORM IS BEING FILED IN TRIPLICATE: one copy for this application; one copy for use in connection with the Deposit Account (if applicable); and one copy for the above-mentioned parent application (if any extension of time is necessary).**

**2. Contents of Application**

a. Specification of **Eight (8)** pages;

- ☐ A microfiche computer program (Appendix);  
☐ A nucleotide and/or amino acid sequence submission;

☐ Because the enclosed application is in a non-English language, a verified English translation ☐ is enclosed ☐ will be filed.

☐ Cancel original claims \_\_\_\_\_ of the prior application before calculating the filing fee. (At least one original independent claim must be retained for filing date purposes.)

b. ☒ Drawings on **Two (2)** sheets;

- c. ☒ A signed Oath/Declaration ☒ is enclosed / ☐ will be filed in accordance with 37 C.F.R. §1.53(f).

The enclosed Oath/Declaration is ☒ newly executed / ☐ a copy from a prior application under 37 C.F.R. §1.63(d) / ☐ accompanied by a statement requesting the deletion of person(s) not inventors in the continuing application.

d. **Fees**

FILING FEE	Number				Number				Basic Fee				
CALCULATION	Filed				Extra				Rate				
Total Claims	16	-	20	=	0	x	\$22.00	=				00.00	
Independent Claims	2	-	3	=	0	x	\$82.00	=				00.00	
Multiple Dependent Claim(s) Used								\$270.00	=			00.00	
FILING FEE - NON-SMALL ENTITY												790.00	
FILING FEE - SMALL ENTITY: Reduction by 1/2													
[ ✓ ] Verified Statement under 37 C.F.R. §1.27 is enclosed.												395.00	
[ ] Verified Statement filed in prior application.													
Assignment Recordal Fee (\$40.00)													
37 C.F.R. §1.17(k) Fee (non-English application)													
TOTAL												395.00	

- ☒ A check is enclosed to cover the calculated fees. The Commissioner is hereby authorized to charge any additional fees that may be required, or credit any overpayment, to Deposit Account No. 08-0750. A duplicate copy of this document is enclosed.
- ☐ The calculated fees will be paid within the time allotted for completion of the filing requirements.
- ☐ The calculated fees are to be charged to Deposit Account No. 08-0750. The Commissioner is hereby authorized to charge any additional fees that may be required, or credit any overpayment, to said Deposit Account. A duplicate copy of this document is enclosed.

3. **Priority Information**

- ☐ **Foreign Priority:** Priority based on \_\_\_\_\_ Application No. \_\_\_\_\_, filed \_\_\_\_\_, is claimed.
- ☐ A copy of the above referenced priority document ☐ is enclosed / ☐ will be filed in due course, pursuant to 35 U.S.C. §119(a)-(d).
- ☐ **Provisional Application Priority:** Priority based on United States Provisional Application No. \_\_\_\_\_, filed \_\_\_\_\_, is claimed under 35 U.S.C. §119(e).

Date February 3, 1998**4. Other Submissions**

- ☐ A Preliminary Amendment is enclosed.
- ☐ An Information Disclosure Statement, \_\_\_\_\_ sheets of PTO Form 1449, and \_\_\_\_\_ patent(s)/publications/documents are enclosed.
- ☒ A power of attorney
- ☒ is submitted ☒ with the new Oath/Declaration.
- ☐ is of record in the prior application and ☐ is in the original papers / ☐ a copy is enclosed.
- ☐ An Assignment of the invention
- ☐ is enclosed with a cover sheet pursuant to 37 C.F.R. §§3.11, 3.28 and 3.31.
- ☐ is of record in a prior application. The assignment is to \_\_\_\_\_, and is recorded at Reel \_\_\_\_\_, Frame(s) \_\_\_\_\_.
- ☐ An Establishment of Assignee's Right To Prosecute Application Under 37 C.F.R. §3.73(b), and Power Of Attorney is enclosed.
- ☒ An Express Mailing Certificate is enclosed.
- ☐ Other: \_\_\_\_\_

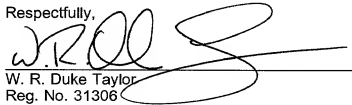
Attention is directed to the fact that the correspondence address for this application is:

Harness, Dickey & Pierce, P.L.C.  
P.O. Box 828  
Bloomfield Hills, Michigan 48303  
(248) 641-1600.

Dated: February 3, 1998

Harness, Dickey & Pierce, P.L.C.  
P.O. Box 828  
Bloomfield Hills, Michigan 48303  
(248) 641-1600

Respectfully,

  
\_\_\_\_\_  
W. R. Duke Taylor  
Reg. No. 31306

ATTORNEYS AND COUNSELORS  
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Hon. Commissioner of Patents  
and Trademarks  
Washington, D.C. 20231

**EXPRESS MAILING CERTIFICATE**

Attorney: W. R. Duke Taylor

**February 3, 1998**

Karen M. Galbraith  
Karen M. Galbraith

## **BOWLING BALL FINGER GRIP**

### **BACKGROUND AND SUMMARY OF THE INVENTION**

The present invention relates to bowling, and more particularly to a gripping device positioned on the bowler's index finger to enable the bowler to impart spin upon the bowling ball.

5 In bowling, while the ball is rolling down the lane, it is desirous to produce rotation about the horizontal axis of the ball. This rotation creates a hook in the ball as it is rolled down the lane. The hook action on the ball enables the ball to move laterally with respect to the pins so that the ball contacts more pins creating pin action to increase the number of pins knocked down.

10 In order to create hook on the bowling ball, the bowler contacts his index finger against the ball. In doing so, the bowler creates friction on his finger, which, in turn causes blisters or callouses to form on the bowler's index finger. Since both blisters and callouses are undesirable, bowlers search for aids to eliminate these ailments. Bowlers have used tape, bandages and the like to prohibit blisters or  
15 callouses. However, these surfaces become glazed and do not enable the bowler to exert the proper friction, in turn, rotation onto the ball to create the desired hook.

Accordingly, bowlers desire an aid which protects against blisters and callouses while providing a superior surface for gripping the ball.

20 The present invention provides the art with such a device. The present invention provides the art with a grip which protects against blisters and callouses while providing a superior gripping action on the ball. The gripping surface of the present invention enables the bowler to achieve additional revolutions on the ball while it is rolling down the lane.

From the following detailed description, taken in conjunction with the drawings and appended claims, other objects and advantages of the present invention will become apparent to those skilled in the art.

### **BRIEF DESCRIPTION OF THE DRAWINGS**

5           Figure 1 is a perspective view of the finger grip on a bowler in use viewed from within the bowling ball.

Figure 2 is a perspective view of the finger insert according to Figure 1.

Figure 3 is a cross-sectional view of Figure 2 along line 3-3 thereof.

Figure 4 is a cross-sectional view of Figure 2 along line 2-2 thereof.

### **DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT**

10           Turning to the figures, particularly Figure 1, the finger insert in accordance with the invention is shown and identified with the reference numeral 10. The finger grip 10 is illustrated on a bowler's index finger 12 in contact with the ball 14. The bowler's middle finger and ring finger 16 and 18 are illustrated within the holes of the ball.  
15

          The finger grip 10 has a tubular shaped body 20 defining a bore 22. The body is made from a polymeric material being substantially resilient. The bore 22 when viewed along its axis (as in Figure 3) has an elliptical configuration. The body 20 includes a pad portion 24 and a retention portion 26. The retention portion 26 has an overall U-shaped configuration having legs 28 and 30 connected by web 32. The legs and web surround the sides and top of the finger. Also, the web 32 is tapered at the closed end of the bore 22 to conform to the bowler's finger. Thus, the taper 34 is in  
20

close proximity to or contacts the fingernail of the bowler providing a close fit within the bore 22.

The pad 24 is connected with the legs 28, 30 of the retention portion 26 to provide the tubular body 20 with an overall D-shaped configuration when viewed along its axis as seen in Figure 3. The pad portion 24 has a curved surface 40 which includes one or more projecting members 42. The curved surface 40 has a curvature which conforms to the outer surface of a bowling ball. Thus, the radius of the curvature is substantially equal to the radius of the bowling ball 14. Likewise, the curvature of the surface 40 is substantially the same as the curvature of the bowling ball. The surface is thus concave.

The projecting members 42 are positioned in a desired pattern along the rectangular face of the pad. Ordinarily, the pattern is such that the projections are positioned in rows having adjacent row with one less or one more projections 42 when moving longitudinally along the longitudinal axis of the tube 20. Also, the rows of projections 42 are aligned laterally with one another such that a straight line would be formed through their centers.

The projections 42 are on the curved surface 44 such that a line drawn through the tips of the projections defines a curve which has a curvature substantially the same as that of the bowling ball. The projections 42 have a hemispherical end for contacting the bowling ball. As the end 44 contacts the ball, depending upon the pressure exerted by the finger, the hemisphere will flatten, forming a circular face onto the bowling ball as illustrated in Figure 1. Thus, the projections will grip the bowling ball enabling the bowler to better initiate rotation as the bowling ball is released. The projection members 42 could have a number of different configurations such as truncated right cylinders, tetrahedrons, or the like.

While the above detailed description describes the preferred embodiment of the present invention, the invention is susceptible to modification, variation and alteration without deviating from the scope and fair meaning of the subjoined claims.



**WHAT IS CLAIMED IS:**

1. A bowling accessory, comprising:  
a mechanism for retaining the accessory to a bowler's finger;  
a pad for contacting a bowling ball, said pad associated with said retaining mechanism, and said pad having an arcuate surface.
2. The bowling accessory according to Claim 1, wherein said arcuate surface has one or more projecting for contacting the bowling ball.
3. The bowling accessory according to Claim 1, wherein said arcuate surface has a plurality of projections in a desired pattern.
4. The bowling accessory according to Claim 1, wherein said arcuate surface has a radius which is complementary to a radius of a bowling ball.
5. The bowling accessory according to Claim 1, wherein said arcuate surface is concave.
6. A bowling finger grip, comprising:  
a tubular member having a bore for receiving the finger of a bowler;  
a gripping surface on said tubular member for contacting a bowling ball, said gripping surface being curved.

7. The bowling finger grip according to Claim 6, wherein said gripping surface including a plurality of gripping members.

8. The bowling finger grip according to Claim 7, wherein said gripping members have a convex face for contacting the bowling ball.

9. The bowling finger grip according to Claim 6, wherein said bore is tapered at one end for enhancing fit with a bowler's finger tip.

10. The bowling finger grip according to Claim 6, wherein said curve of said gripping surface has a curvature substantially the same as the bowling ball curvature.

11. The bowling finger grip according to Claim 6, wherein said gripping surface includes a plurality of projecting members positioned in a desired pattern on said gripping surface.

12. The bowling finger grip according to Claim 11, wherein said projecting members are aligned with one another.

13. The bowling finger grip according to Claim 6, wherein said tubular member has a D-shaped section viewed along its axis.

14. The bowling finger grip according to Claim 13, wherein said bore is elliptical viewed along its axis.

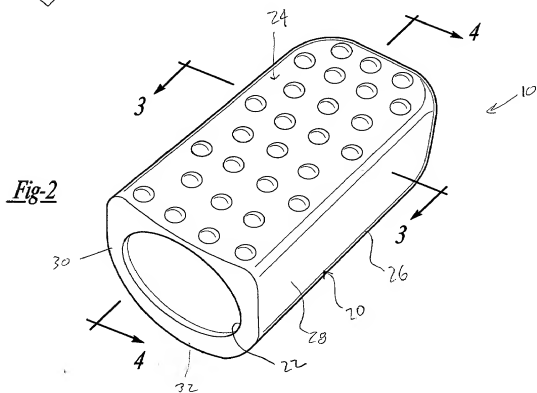
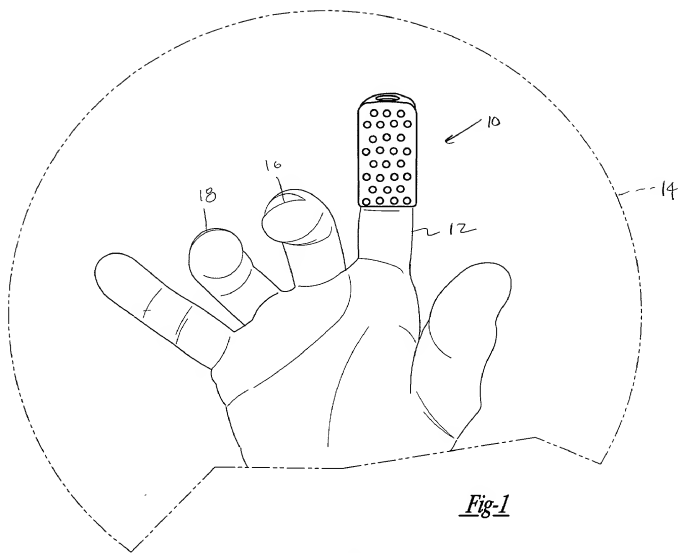
15. The bowling finger grip according to Claim 6, wherein a line through ends of said projecting members along the width of said gripping surface is curved.

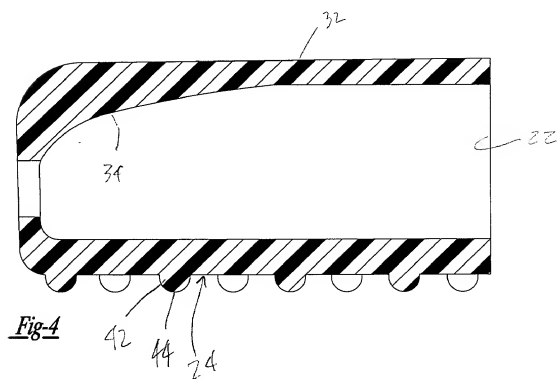
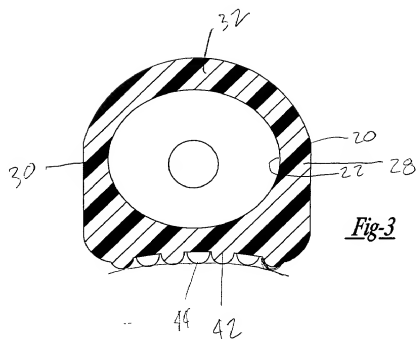
16. The bowling finger grip according to Claim 15, wherein said curvature of said line is substantially the same as the curvature of the bowling ball.

## **BOWLING BALL FINGER GRIP**

### **ABSTRACT OF THE DISCLOSURE**

A finger grip (10) for a bowling ball (14) has a mechanism (20) to retain the grip to a bowler's finger (12). A pad (24) is included to contact the bowling ball (14). The bowling ball (14) is associated with the retention mechanism. Also the pad (24) has an arcuate surface.





## DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled

### BOWLING BALL FINGER GRIP

the specification of which (check one)

☒ is attached hereto.

☐ was filed on \_\_\_\_\_ as Application  
Serial No. \_\_\_\_\_ and was amended on  
\_\_\_\_\_ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, section 119(a)-(d) of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

### PRIOR FOREIGN APPLICATION(S)

#### Priority Claim

_____ (Number)	_____ (Country)	_____ (Day/Month/Year filed)	Yes	No
_____ (Number)	_____ (Country)	_____ (Day/Month/Year filed)	Yes	No
_____ (Number)	_____ (Country)	_____ (Day/Month/Year filed)	Yes	No

## DECLARATION AND POWER OF ATTORNEY

I hereby claim the benefit under Title 35, United States Code, §119(e) of any United States Provisional application(s) listed below:

### PRIOR PROVISIONAL APPLICATIONS

\_\_\_\_\_  
(application serial number)

\_\_\_\_\_  
(Month / Day / Year filed)

\_\_\_\_\_  
(application serial number)

\_\_\_\_\_  
(Month / Day / Year filed)

I hereby claim the benefit under Title 35, United States Code, section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, section 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

Application Serial No.	Filing Date	Status - patented, pending, abandoned
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

I hereby appoint W. R. Duke Taylor, Reg. No. 31306, and each principal, attorney of counsel, associate and employee of Harness, Dickey & Pierce, P.L.C., who is a registered Patent Attorney, my attorney with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith. I request the Patent and Trademark Office to direct all correspondence and telephone calls relative to this application to Harness, Dickey & Pierce, P.L.C., P. O. Box 828, Bloomfield Hills, Michigan 48303 (248) 641-1600.

Full name of sole or first inventor: David A. Bernhardt

Inventor's signature: David A. Bernhardt

Date: 1-28-98

Residence: 4921 Deer Creek Circle South, Washington Township, Michigan 48094

Citizenship: United States of America

Post Office Address: Same as Residence



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Group Art Unit:  
Examiner:  
Inventor: David A. Bernhardt  
Serial Number:  
Filed:  
For: **BOWLING BALL FINGER GRIP**

Patent No.  
Issued:

**VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS  
(37 CFR 1.9(f) AND 1.27(b)) - INDEPENDENT INVENTOR**

As a below named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees under section 41(a) and (b) of Title 35, United States Code, to the Patent and Trademark Office with regard to the invention described in

- ☒ the specification filed herewith.  
☐ the application whose serial number is set forth above.  
☐ the patent set forth above.

I have not assigned, granted, conveyed or licensed and am under no obligation under contract or law to assign, grant, convey or license, any rights in the invention to any person who could not likewise be classified as an independent inventor under 37 CFR 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b)).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Signature

  
David A. Bernhardt

Date

1-28-98